

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for manufacturing a pre-cast polyacrylamide slab gel for use in slab electrophoresis, said method comprising:

(a) placing a gel-forming liquid mixture inside a gel enclosure defined by a pair of chemically inert, transparent plates separated from each other by fixed distance, said gel-forming mixture comprising an acrylamide monomer, a crosslinking agent, a buffer, and a nonionic amphiphilic polymer, in aqueous solution; and

(b) polymerizing said gel-forming mixture into a gel; and

~~(c) storing said gel for at least 5 days prior to use in slab electrophoresis~~

wherein the nonionic amphiphilic polymer is selected from polyethylene oxide and polyethylene glycol in a concentration of from about 0.01 to about 0.3% by weight.

Claim 2 (original): A method in accordance with claim 1 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 8,000,000.

Claim 3 (original): A method in accordance with claim 1 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 5,000,000.

Claim 4 (original): A method in accordance with claim 1 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 1,000,000.

Claim 5 (original): A method in accordance with claim 1 in which said nonionic amphiphilic polymer has a molecular weight of about 100,000 or less.

Claim 6 (original): A method in accordance with claim 1 in which said nonionic amphiphilic polymer has a molecular weight of about 20,000 or less.

Claims 7 - 13 (canceled)

Claim 14 (original): A method in accordance with claim 1 in which said plates are glass.

Claim 15 (original): A method in accordance with claim 1 in which said plates are plastic.

Claim 16 (original): A method in accordance with claim 15 in which said plastic is a member selected from the group consisting of polycarbonate, polystyrene, acrylic polymers, styrene-acrylonitrile copolymer, acrylonitrile polymers, poly(ethylene terephthalate), poly(ethylene terephthalate glycolate), and poly(ethylene naphthalenedicarboxylate).

Claim 17 (original): A method in accordance with claim 15 in which said plastic is a polystyrene-acrylonitrile blend.

Claim 18 (currently amended): A pre-cast polyacrylamide slab gel for use in slab gel electrophoresis, said pre-cast slab gel comprising:

a pair of chemically inert, transparent plates, and

a polyacrylamide gel cast between said plates, said polyacrylamide gel formed by polymerization of an acrylamide monomer and a crosslinking agent, said polymerization having been performed in an aqueous solution comprising said acrylamide monomer, said crosslinking agent, a buffer, and a nonionic amphiphilic polymer, ~~and said gel thus formed having been stored between said plates for at least 5 days prior to use in slab gel electrophoresis~~ wherein the nonionic amphiphilic polymer is selected from polyethylene oxide and polyethylene glycol in a concentration of from about 0.01 to about 0.3% by weight.

Claim 19 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 8,000,000.

Claim 20 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 5,000,000.

Claim 21 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said nonionic amphiphilic polymer has a molecular weight of from about 100,000 to about 1,000,000.

Claim 22 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said nonionic amphiphilic polymer has a molecular weight of about 20,000 or less.

Claims 23 - 29 (canceled)

Claim 30 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said plates are glass.

Claim 31 (original): A pre-cast polyacrylamide slab gel in accordance with claim 18 in which said plates are plastic.

Claim 32 (original): A pre-cast polyacrylamide slab gel in accordance with claim 31 in which said plastic is a member selected from the group consisting of polycarbonate, polystyrene, acrylic polymers, styrene-acrylonitrile copolymer, acrylonitrile polymers, poly(ethylene terephthalate), poly(ethylene terephthalate glycolate), and poly(ethylene naphthalenedicarboxylate).

Claim 33 (original): A pre-cast polyacrylamide slab gel in accordance with claim 31 in which said plastic is a polystyrene-acrylonitrile blend.